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     (FILE 'HOME' ENTERED AT 13:37:38 ON 18 SEP 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 13:37:58 ON 18 SEP 2007

     FILE 'REGISTRY' ENTERED AT 13:38:05 ON 18 SEP 2007
               E CHITOSAN/CN
L1           1 S E3

     FILE 'CAPLUS, MEDLINE' ENTERED AT 13:39:52 ON 18 SEP 2007
L2       26665 S L1
L3         105 S L2 AND SPRAY? (P) SALT?
L4          76 S L3 AND ACID?
L5           2 S L4 AND SEA
L6          32 S L4 AND DRY?
L7          20 S L6 AND PREP?
L8          12 S L6 NOT L7
L9          44 S L4 NOT L6
L10          0 S L9 AND BIND?
L11         29 S L3 NOT L4
L12        164 S L2 AND SPRAY? (P) PARTICLE?
L13         16 S L12 AND SALT?
L14          1 S L2 AND SPRAY? ON (P) PARTICLE? (P) NACL
L15        164 S L12 (W) PARTICLE?
L16        164 S L12 (W) PARTICLE?
L17        164 S L12 (S) PARTICLE?
L18        327 S D HIS
L19          0 S CHITOSAN? (P) SPRAYED ONTO PARTICLE?
L20          0 S CHITOSAN? (P) SPRAYED ON PARTICLE?
L21          0 S CHITOSAN? (P) SPRAYED ON SALT PARTICLE?
L22          0 S CHITOSAN? (P) SPRAY ON SALT PARTICLE?
L23          0 S CHITOSAN? (P) SPRAY ONTO SALT PARTICLE?
L24          0 S CHITOSAN? (P) SPRAY? ONTO SALT PARTICLE?
L25          1 S CHITOSAN? (P) SPRAY? (P) SALT PARTICLE?
L26        141 S CHITOSAN? (P) SPRAY? (P) PARTICLE?
L27         50 S L26 AND DRIED
L28          4 S CHITOSAN? (P) SALT PARTICLE?
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     (FILE 'HOME' ENTERED AT 17:20:24 ON 18 SEP 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 17:20:46 ON 18 SEP 2007
L1            52 S CHITOSAN (P) SALT (P) BIND?
L2             0 S L1 AND GRAIN?
L3             5 S L1 AND PARTICLE?
L4             2 S L1 AND ADHE?
L5             6 S L1 AND SOLID?
L6             1 S L1 AND SEA SALT?
L7            51 S L1 NOT L6
L8             0 S L7 AND ROCK SALT?
L9           234 S CHITOSAN (P) SALT (P) REACT?
L10            4 S CHITOSAN (P) SALT PARTICLE?
L11          155 S CHITOSAN (P) SALT (P) REACTION?
L12            0 S CHITOSAN (P) TABLE SALT (P) REACTION?
L13            2 S CHITOSAN (P) TABLE SALT
L14            2 S CHITOSAN (P) TABLE SALT?
L15            1 S CHITOSAN SALT PARTICLE?
L16            1 S "CHITOSAN/SALT" PARTICLE?
L17          194 S "CHITOSAN/SALT"
L18           16 S L17 AND SPRAY?
L19           10 S CHITOSAN/TI (P) NACL/TI
L20            6 S CHITOSAN (P) NACL (P) POROGEN?
L21           73 S CHITOSAN (P) NACL (P) MEMBRANE?
L22            3 S L21 AND SPRAY?
L23            1 S CHITOSAN (P) SODIUM CHLORIDE PARTICLE?
L24            0 S CHITOSAN (P) SOLID SODIUM CHLORIDE
L25            0 S CHITOSAN (P) SODIUM CHLORIDE CRYSTAL?
L26            0 S CHITOSAN (P) NACL CRYSTAL?
L27            0 S CHITOSAN (P) NACL POWDER?
L28            4 S CHITOSAN (P) NACL SALT?
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L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
RN 9012-76-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Chitosan (CA INDEX NAME)
OTHER NAMES:
CN 100D-VL
CN Amidan
CN BC 10
CN BC 10 (polysaccharide)
CN Biopolymer L 112
CN C 3646
CN C 60M
CN Cerosan 5000
CN Chicol
CN Chirosan 100
CN Chitan, N-acetyl-
CN Chitech
CN Chitin D
CN Chitin, N-deacetyl-
CN Chitoclear
CN Chitoclear 400
CN Chitoclear CG 400
CN ChitoClear FG 95
CN Chitoclear TM 1111
CN Chitoclear TM 1220
CN ChitoClear TM 1292
CN Chitoclear TM 588
CN Chitoclear TM 656
CN ChitoClear TM 850-2
CN Chitofos
CN Chitolaze
CN Chitolife
CN Chitopearl 3510
CN Chitopearl AL 10
CN Chitopearl BC 3000
CN Chitopearl BCW 2500
CN Chitopearl BCW 3000
CN Chitopearl BCW 3500
CN Chitopearl BCW 3505
CN Chitopearl BCW 3507
CN Chitopearl K 20
CN Chitophos
CN Chitosan 100
CN Chitosan 10B
CN Chitosan 500
CN Chitosan CLH
CN Chitosan EL
CN Chitosan F
CN Chitosan FL
CN Chitosan H
CN Chitosan LL
CN Chitosan LL 80
CN Chitosan LLWP
CN Chitosan M
CN Chitosan MP
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
DR 57285-05-9, 191045-06-4
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyother, Polyother only
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB,

DDFU, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDRUGNEWS,
IMSRESEARCH, IPA, MEDLINE, NAPRALERT, PHAR, PIRA, PROMT, RTECS*,
SCISEARCH, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, USPATOLD, VTB
(*File contains numerically searchable property data)
Other Sources: NDSL**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

23448 REFERENCES IN FILE CA (1907 TO DATE)
3660 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
23613 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1015840 CAPLUS
DOCUMENT NUMBER: 141:428027
TITLE: Method for producing a chitosan-bound salt with antihypertensive activity
INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park, Hyun Jin; Kim, In Cheol
PATENT ASSIGNEE(S): S. Korea
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004100681	A1	20041125	WO 2004-KR410	20040227
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2004099587	A	20041202	KR 2003-31616	20030519
EP 1631155	A1	20060308	EP 2004-715573	20040227
R: DE, ES, FR, GB, IT				
JP 2006518190	T	20060810	JP 2005-518455	20040227
US 2005232999	A1	20051020	US 2004-518419	20041217

PRIORITY APPLN. INFO.: KR 2003-31616 A 20030519
WO 2004-KR410 W 20040227

AB The present invention relates to a method for producing a chitosan-bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prep. a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:174461 CAPLUS
DOCUMENT NUMBER: 141:179341
TITLE: Microencapsulation of hydrophilic drug substances using biodegradable polyesters. Part II: Implants allowing controlled drug release - a feasibility study using bisphosphonates
AUTHOR(S): Weidenauer, U.; Bodmer, D.; Kissel, T.
CORPORATE SOURCE: Dep. Pharmaceutics and Biopharm., Philipps-Univ., Marburg, D-35032, Germany
SOURCE: Journal of Microencapsulation (2004), 21(2), 137-149
CODEN: JOMIEF; ISSN: 0265-2048
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The prolonged delivery of hydrophilic drug salts from hydrophobic polymer carriers at high drug loading is an ambitious goal. Pamidronate disodium salt (APD) containing implants prepd. from spray-dried microparticles were investigated using a laboratory ram extruder. An APD-containing polymer matrix consisting of an APD-chitosan implant embedded in the biodegradable polymer D,L-poly(lactide-co-glycolide acid-glucose) (PLG-GLU) was compared with a matrix system with the micronized drug distributed in the PLG-GLU. The APD-chitosan matrix system showed a triphasic release behavior at loading levels of 6.86 and 15.54% (weight/weight) over 36 days under in-vitro conditions. At higher loading (31.92%), a drug burst was observed within 6 days due to the formation of pores and channels in the polymeric matrix. In contrast, implants containing the micronized drug showed a more continuous release profile over 48 days up to a loading of 31.78% (weight/weight). At a drug loading of 46.17% (weight/weight), a drug burst was observed Using micronized drug salts and reducing the surface area available for diffusion, parenteral delivery systems for highly water-soluble drug candidates were shown to be tech. feasible at high drug loadings.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:566810 CAPLUS
DOCUMENT NUMBER: 140:64869
TITLE: Controlled release of vancomycin from freeze-dried chitosan salts coated with different fatty acids by spray-drying
AUTHOR(S): Cerchiara, T.; Luppi, B.; Bigucci, F.; Petrachi, M.; Orienti, I.; Zecchi, V.
CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Bologna, Bologna, 40127, Italy
SOURCE: Journal of Microencapsulation (2003), 20(4), 473-478
CODEN: JOMIEF; ISSN: 0265-2048
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan aspartate, chitosan glutamate and chitosan hydrochloride were prepd. by freeze drying and coated with stearic, palmitic, myristic and lauric acids by spray-drying technique. Vancomycin hydrochloride was used as a peptidic model drug whose sustained release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts on the release behavior of vancomycin hydrochloride from the freeze-dried and spray-dried systems at pH 2.0 and 7.4.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:334876 CAPLUS
DOCUMENT NUMBER: 138:358455
TITLE: Matrix tablet formulation with enhanced dissolution for a piperazine urea derivative
INVENTOR(S): Kranz, Heiko; Voelkel, Christoph; Lipp, Ralph; Tack, Johannes; Wiesinger, Herbert
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003035037	A1	20030501	WO 2002-EP11229	20021007
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10152351	A1	20030508	DE 2001-10152351	20011018
DE 10152351	B4	20050922		
CA 2463951	A1	20030501	CA 2002-2463951	20021007
AU 2002333896	A1	20030506	AU 2002-333896	20021007
AU 2002333896	A2	20030506		
AU 2002333896	B2	20070726		
EP 1435917	A1	20040714	EP 2002-801884	20021007
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
BR 2002013340	A	20041005	BR 2002-13340	20021007
CN 1571660	A	20050126	CN 2002-820512	20021007
JP 2005506365	T	20050303	JP 2003-537604	20021007
NZ 532287	A	20070427	NZ 2002-532287	20021007
US 2003087913	A1	20030508	US 2002-273368	20021018
MX 2004PA03522	A	20040723	MX 2004-PA3522	20040415
NO 2004002022	A	20040514	NO 2004-2022	20040514
ZA 2004003781	A	20041129	ZA 2004-3781	20040517
PRIORITY APPLN. INFO.:			DE 2001-10152351 A	20011018
			US 2001-330410P P	20011022
			WO 2002-EP11229 W	20021007

AB The invention relates to a polymer matrix tablet formulation of (2R)-1-((4-chloro-2-(ureido)phenoxy)methyl)carbonyl-2-methyl-4-(4-fluorobenzyl)piperazine or its salt to enhance the dissoln. of the drug; the formulation further includes and organic acid, lubricants and other excipient. The polymer matrix can be composed of water-soluble polyvinylpyrrolidone and water-insol. polyvinylacetate. The drug can be dispersed in the polymer matrix or be coated by the polymer; mixing, granulation, spray-drying, prilling, tablet pressing are the applyed formulation steps. The tablets are for the treatment of multiple sclerosis, rheumatoid arthritis, psoriasis, and atopic dermatitis. Thus matrix tablets were prepd. by direct tablet pressing from the ingredients (mg): piperazine urea hydrogen sulfate 100; lactose 69; Kollidon SR 75; fumaric acid 50; silica 3; magnesium stearate 3.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:94052 CAPLUS

DOCUMENT NUMBER: 138:132621

TITLE: Method for preventing agglomeration of precipitates formed in agrochemical preparations and disinfection of seeds

INVENTOR(S): Ikeuchi, Toshisuke; Fujita, Shigeki; Kato, Susumu; Sasaki, Shuji

PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003034603	A	20030207	JP 2001-220562	20010719

PRIORITY APPLN. INFO.: JP 2001-220562 20010719

AB Agglomeration of ppts. in diluted agrochem. prepns. is prevented by adding agglomeration inhibitors to the agrochem. prepns. diluted with H2O at such an amount that formation of precipitate is not found by ≥15 min after dilution Seeds are disinfected by adding agglomeration inhibitors to seed disinfectants diluted with H2O and contacting the seeds with the diluted solution while circulating the solution or upon spraying . The agglomeration preventers may be Al2(SO4)3, poly(Al chloride), Fe2(SO4)3, CM-cellulose, poly(acrylic acid) esters, poly(vinyl alc.), alginate salts, polyvinylpyrrolidone, chitosan, etc.

L7 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:323305 CAPLUS
DOCUMENT NUMBER: 132:307342
TITLE: Extraction of pullulan from fermentation liquor
INVENTOR(S): Sun, Wanru; Jiang, Ning; Xie, Haoxu; Jiang, Guoyang
PATENT ASSIGNEE(S): Inst. of Microbiology, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1216780	A	19990519	CN 1997-121607	19971105
CN 1106448	B	20030423		

PRIORITY APPLN. INFO.: CN 1997-121607 19971105

AB The process comprises heating the fermentation liquor with or without filter-aided adsorbent at 50-150° for >60 min, flocculating at pH 2-10 and >50° for 1-24 h, centrifugating, separating and concentrating by membrane at 10-70° and pH 3-9, and spraying to dry. The filter-aided adsorbent is selected from bentonite, kieselguhr, clay, activated charcoal, and cellulose, etc.; and the coagulating agent from one or more of Ca salt, Mg salt , Al salt, Co salt, Ni salt, Mn salt , Zn salt, Pd(NO3)2, SnCl2, polyacrylamide, deacetyl-chitin, acrylamide-acrylic acid copolymer, and acrylic acid -maleic acid copolymer, etc. The addns. of filter-aided adsorbent and flocculating agent are 0.05-5% and 0.01-5%, resp.

L7 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:402621 CAPLUS
DOCUMENT NUMBER: 129:137113
TITLE: Molded laminated materials with hydrophobic surfaces and having functional materials on the hydrophobic surfaces, manufacture, and usages
INVENTOR(S): Ozawa, Toshio; Taniyama, Osamu
PATENT ASSIGNEE(S): Toyo Kogyo Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10166515	A	19980623	JP 1996-358381	19961209

PRIORITY APPLN. INFO.: JP 1996-358381 19961209

AB The laminates have functional materials (A) which are applied on hydrophobic surfaces such as plastics in small polka dot patterns. The products are manufactured by (1) spraying or printing aqueous solns. of A or (dispersed) solns. containing A and hydrophilic solvents as main solvents on the laminates having hydrophobic surfaces and (2) drying. The functional materials have antibacterial, deodorant, or antifogging properties. Thus, transparent poly(vinyl chloride) was laminated onto a base tray for foods, sprayed with an aqueous solution containing 5% chitosan (antibacterial agents) and 3% lactic acid on inside of the tray and dried to give a test piece showing good antibacterial properties.

L7 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:635078 CAPLUS
DOCUMENT NUMBER: 115:235078
TITLE: Nonwood fiber-based paper with good printability
INVENTOR(S): Kanayama, Nozomi; Endo, Akitaro
PATENT ASSIGNEE(S): Daifuku Seishi K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03167388	A	19910719	JP 1989-308119	19891127

PRIORITY APPLN. INFO.: JP 1989-308119 19891127

AB The title paper is made from pulps containing bast and/or leaf fibers and water-insol. fibrous CM-cellulose and salts and is coated with chitosan at least on its printing surface. Thus, handsheets (basis weight 40 g/m2) of 90:10 manila hemp fibers and CM-cellulose (degree of substitution 0.33) were sprayed with a .apprx.2% solution of 1:1 chitosan-glycolic acid (dry pickup 0.5%), and dried at 120° on a mirror drum. The sheets had better strength and printability than without CM-cellulose or chitosan.

L7 ANSWER 18 OF 20 MEDLINE on STN
ACCESSION NUMBER: 2006142181 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16314079
TITLE: Preparation and release of salbutamol from chitosan and chitosan co-spray dried compacts and multiparticulates.
AUTHOR: Corrigan Deirdre O; Healy Anne Marie; Corrigan Owen I
CORPORATE SOURCE: School of Pharmacy and Pharmaceutical Sciences, University of Dublin, Trinity College, Dublin, Ireland.
SOURCE: European journal of pharmaceutics and biopharmaceutics : official journal of Arbeitsgemeinschaft fur Pharmazeutische Verfahrenstechnik e.V, (2006 Apr) Vol. 62, No. 3, pp. 295-305. Electronic Publication: 2005-11-28.
Journal code: 9109778. ISSN: 0939-6411.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200605
ENTRY DATE: Entered STN: 14 Mar 2006
Last Updated on STN: 31 May 2006

Entered Medline: 30 May 2006

AB Chitosan microparticulates were prepared by spray drying from aqueous media containing hydrochloric acid or acetic acid. The medium affected the morphology and degree of acetylation of chitosan, the presence of acetic acid resulting in increased acetylation of the polymer during processing. Co-spray drying salbutamol sulphate/chitosan systems with the crosslinking agent formaldehyde had no detectable effect on particle morphology. However, with increasing salbutamol loading particles became less spherical, taking on a collapsed appearance. Spray dried chitosan-salbutamol sulphate microparticulates were X-ray amorphous. Chitosan-salbutamol sulphate composites were compressed into discs to quantify drug release and showed delayed release of salbutamol sulphate. The general power law equation fitted the data better than the t0.5, mono- or bi-exponential models and gave n indices greater than 0.5, i.e. in the range 0.53-0.71. Crosslinking did not dramatically alter the drug release behaviour. Both crosslinked and non-crosslinked composites swelled during release, the former to the greater extent. The release data for crosslinked composites gave slightly higher n values than the corresponding non-crosslinked composites, consistent with the increased swelling of these systems. Release studies were also conducted on the microparticulates. Because of the small particle size and large surface area present, the release of the highly soluble drug salt was extremely rapid (> 90% release in 5 min). Twin impinger analysis indicated good in vitro deposition of the microparticulates and potential for pulmonary delivery.

L7 ANSWER 19 OF 20 MEDLINE on STN

ACCESSION NUMBER: 2004437121 MEDLINE

DOCUMENT NUMBER: PubMed ID: 15342177

TITLE: Characterization of chitosan acetate as a binder for sustained release tablets.

AUTHOR: Nunthanid J; Laungtana-Anan M; Sriamornsak P; Limmatvapirat S; Puttipipatkhachorn S; Lim L Y; Khor E

CORPORATE SOURCE: Department of Pharmaceutical Technology, Faculty of Pharmacy, Silpakorn University, Nakhon Pathom 73000, Thailand.. jurairat@email.pharm.su.ac.th

SOURCE: Journal of controlled release : official journal of the Controlled Release Society, (2004 Sep 14) Vol. 99, No. 1, pp. 15-26.
Journal code: 8607908. ISSN: 0168-3659.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200503

ENTRY DATE: Entered STN: 3 Sep 2004
Last Updated on STN: 5 Mar 2005
Entered Medline: 4 Mar 2005

AB A chitosan derivative as an acetate salt was successfully prepared by using a spray drying technique. Physicochemical characteristics and micromeritic properties of spray-dried chitosan acetate (SD-CSA) were studied as well as drug-polymer and excipient-polymer interaction. SD-CSA was spherical agglomerates with rough surface and less than 75 microm in diameter. The salt was an amorphous solid with slight to moderate hygroscopicity. The results of Fourier transform infrared (FTIR) and solid-state (13)C NMR spectroscopy demonstrated the functional groups of an acetate salt in its molecular structure. DSC and TGA thermograms of SD-CSA as well as FTIR and NMR spectrum of the salt , heated at 120 degrees C for 12 h, revealed the evidence of the conversion of chitosan acetate molecular structure to N-acetylglucosamine at higher temperature. No interaction of SD-CSA with either drugs

(salicylic acid and theophylline) or selected pharmaceutical excipients were observed in the study using DSC method. As a wet granulation binder, SD-CSA gave theophylline granules with good flowability (according to the value of angle of repose, Carr's index, and Hausner ratio) and an excellent compressibility profile comparable to a pharmaceutical binder, PVP K30. In vitro release study of theophylline from the tablets containing 3% w/w SD-CSA as a binder demonstrated sustained drug release in all media. Cumulative drug released in 0.1 N HCl, pH 6.8 phosphate buffer and distilled water was nearly 100% within 6, 16 and 24 h, respectively. It was suggested that the simple incorporation of spray-dried chitosan acetate as a tablet binder could give rise to controlled drug delivery systems exhibiting sustained drug release.

L7 ANSWER 20 OF 20 MEDLINE on STN
ACCESSION NUMBER: 2003320948 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12851047
TITLE: Controlled release of vancomycin from freeze-dried chitosan salts coated with different fatty acids by spray-drying.
AUTHOR: Cerchiara T; Luppi B; Bigucci F; Petrachi M; Orienti I; Zecchi V
CORPORATE SOURCE: University of Bologna, Department of Pharmaceutical Sciences, Via S. Donato 19/2, 40127 Bologna, Italy.
SOURCE: Journal of microencapsulation, (2003 Jul-Aug) Vol. 20, No. 4, pp. 473-8.
Journal code: 8500513. ISSN: 0265-2048.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: (IN VITRO)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200311
ENTRY DATE: Entered STN: 10 Jul 2003
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Entered Medline: 26 Nov 2003

AB The aim of this study was to describe a controlled drug release system based on chitosan salts for vancomycin hydrochloride delivery. Chitosan aspartate (CH-Asp), chitosan glutamate (CH-Glu) and chitosan hydrochloride (CH-HCl) were prepared by freeze-drying and coated with stearic, palmitic, myristic and lauric acids by spray-drying technique. Vancomycin hydrochloride was used as a peptidic model drug whose sustained release should minimize its inactivation in the upper part of the gastrointestinal tract. This study evaluated, in vitro, the influence of chitosan salts on the release behaviour of vancomycin hydrochloride from the freeze-dried and spray-dried systems at pH 2.0 and 7.4.

L7 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:904328 CAPLUS
DOCUMENT NUMBER: 147:276352
TITLE: Water-soluble amino alcohol salts of ω-3 and other fatty acids
INVENTOR(S): Rongved, Pal; Klaveness, Jo
PATENT ASSIGNEE(S): Universitetet I Oslo, Norway; Campbell, Neil
SOURCE: PCT Int. Appl., 45pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007091070	A1	20070816	WO 2007-GB438	20070207
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2007213298	A1	20070913	US 2007-672249	20070207
PRIORITY APPLN. INFO.:			GB 2006-2450	A 20060207
			GB 2006-18128	A 20060914

AB A process for the prepn. of a water-soluble unsatd. fatty acid salt (especially ω-3 or ω-6 salts) from a crude composition (e.g., marine oil) comprises adding, in the presence of water, at least one amino alc. so as to form a water-soluble compound; separating an aqueous phase; and optionally isolating the salt from the aqueous phase. Thus, seal blubber oil is hydrolyzed and meglumine salts of the fatty acids are formed.
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:450335 CAPLUS
DOCUMENT NUMBER: 146:403972
TITLE: Method for production of stabilized and soluble chitosan in alkaline media
INVENTOR(S): Muzzarelli, Corrado
PATENT ASSIGNEE(S): Italy
SOURCE: Ital. Appl., 22pp.
CODEN: ITXXCZ
DOCUMENT TYPE: Patent
LANGUAGE: Italian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT 2001AN0055	A1	20030605	IT 2001-AN55	20011205
PRIORITY APPLN. INFO.:			IT 2001-AN55	20011205

AB The method is based on treatment of chitosan with NH3 gas, liquid, or in solution; NH4HCO3 in solution; or primary and secondary aliphatic and aromatic amines,

to form chitosylamines, with terminal glycosylamine groups; the treatment is carried out for several hours or days, at 40°. The product is further stabilized by addition of plasticizers, preferably sorbitol. The chitosan is transformed to salt form by pretreatment with organic or inorg. acids. The process is carried out using steam explosion and spray drying processes. The stabilized chitosan is of interest for pharmaceutical, biomedical, and nutritional applications.

L7 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:336489 CAPLUS
DOCUMENT NUMBER: 146:403975
TITLE: Industrial method for producing chitooligosaccharides through enzymolysis and oxidation
INVENTOR(S): Lin, Qiang; Han, Yongping
PATENT ASSIGNEE(S): Biochemical Engineering College of Beijing Union University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1931882	A	20070321	CN 2006-10113614	20061009
PRIORITY APPLN. INFO.:			CN 2006-10113614	20061009

AB A method includes mixing chitosan, water, and acetic acid to obtain 20-25 g/L chitosan solns., subjecting the chitosan solns. to degradation with cellulase at 55°-60° for 1.5-2.0 h and with 30% H2O2 at 75°-80° for 1-2.5 h, microfiltrating to remove the cellulase residue, nanofiltrating to remove the salt and monosaccharide, concentrating, and spray-drying to obtain products having low mol. wts. and uniform mol. weight distributions.

L7 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1354726 CAPLUS
DOCUMENT NUMBER: 146:106774
TITLE: Hair spray systems for the delivery of compositions containing fixative or conditioning polymers
INVENTOR(S): Schiemann, Hartmut; Krause, Thomas; Franzke, Michael; Weber, Dirk; Moenks, Monika; Baumeister, Jan; Florig, Ellen
PATENT ASSIGNEE(S): Wella Aktiengesellschaft, Germany
SOURCE: Ger. Offen., 26pp. CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102005028383	A1	20061228	DE 2005-102005028383	20050620
WO 2007002045	A1	20070104	WO 2006-US23920	20060620

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,

IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: DE 2005-102005028383A 20050620

AB The invention concerns a hair spray system that contains: (a) pressure resistant packaging; (b) a sprayer with capillary; (c) a propellant composition; (d) hair fixative or conditioning compns. containing nonionic, anionic, amphoteric or zwitterionic polymers that are nebulized via the capillary. Further ingredients include thickeners or gelation agents, oils, waxes emulsifiers. Thus a composition contained (g):polyvinylpyrrolidone 2.5; sorbitol 4.2; carbomer 1.2; aminomethylpropanol 95% 0.4; methylparaben 0.2; PEG-40 hydrogenated castor oil 2.0; panthenol 0.1; perfume 0.2; ethanol 5.0 water to 100. To obtain a fine, dry aerosol spray 50 g of the microemulsion was filled with 50 g propane/butane into a container.

L7 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1354725 CAPLUS
DOCUMENT NUMBER: 146:106773
TITLE: Hair spray systems for the delivery of compositions containing film-forming polymers or cationic polymers
INVENTOR(S): Schiemann, Hartmut; Krause, Thomas; Franzke, Michael; Weber, Dirk; Moenks, Monika; Baumeister, Jan; Florig, Ellen
PATENT ASSIGNEE(S): Wella Aktiengesellschaft, Germany
SOURCE: Ger. Offen., 21pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102005028382	A1	20061228	DE 2005-102005028382	20050620
WO 2007002048	A1	20070104	WO 2006-US23923	20060620

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: DE 2005-102005028382A 20050620

AB The invention concerns a hair spray system that contains: (a) pressure resistant packaging; (b) a sprayer with capillary; (c) a propellant composition; (d) compns. containing film-forming polymers or cationic polymers that are nebulized via the capillary. Further ingredients include thickeners or gelation agents, oils, emulsifiers. Thus a solid microemulsion contained (g): liquid paraffin 13.8; Oleth-10 12.5; Oleth-5 12.5; Polyquaternium-22 2.5; PEG-40 hydrogenated castor oil 2.0; perfume 0.2; Dekaben LMB 0.2; water to 100. To obtain a fine, dry aerosol spray 50 g of the microemulsion was filled with 50 g propane/butane into a container.

L7 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1300479 CAPLUS

DOCUMENT NUMBER: 146:83108
TITLE: Electrospun nanofibers containing paramagnetic Fe3O4 nanoparticles with oriented magnetic properties and its production method and apparatus
INVENTOR(S): Nie, Jun; Yang, Dongzhi; Zhang, Jing
PATENT ASSIGNEE(S): Beijing University of Chemical Technology, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1873064	A	20061206	CN 2006-10089514	20060630
PRIORITY APPLN. INFO.:			CN 2006-10089514	20060630

AB The title method comprises (1) prepg. 0.1-2 mol/L FeCl2 and FeCl3 aqueous solns., resp., mixing the solns. in Fe3+/Fe2+ mol. ratio 1-2:1, introducing N2 to remove O2 in the mixed solution, adding aqueous ammonia dropwise at 50-90° till pH reaches 6.5-7, reacting for 15-30 min, adding aqueous ammonia dropwise again till pH reaches 9-10, terminating the reaction after 30 min, removing the liquid of the top layer, washing the reaction product with distilled water till the washing solution is neutral, and freeze-drying the product to give Fe3O4 nanoparticles, (2) dispersing the Fe3O4 nanoparticles in water to form a 5-30% suspension, adding 0.1-1% surfactant, and ultrasonically dispersing, (3) adding the suspension obtained in step 2 to a solution of spinnable polymer in Fe3O4/polymer ratio 5-40:100, and ultrasonicating for 1-12 h, and (4) introducing the solution to a storage tank, spraying the solution through the nozzle by pump-pressing or gravity, and collecting the nanofibers (diams. = 100-600 nm) along the magnetic field direction to give highly oriented nanofiber membrane. The surfactant is selected from sodium dodecyl sulfonate, sodium dodecyl sulfate, tween 80 (polysorbate), ammonium oleate and alkyl quaternary ammonium salt.

L7 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1063981 CAPLUS
DOCUMENT NUMBER: 145:383083
TITLE: R4 peptide-pDNA nanoparticle coated HepB vaccine microparticles: sedimentation, partitioning, and spray freeze dry bioprocesses
AUTHOR(S): Knowle, R.; Werner, A.; DeLong, R. K.
CORPORATE SOURCE: Process, Formulation and Analytical Laboratories, PowderJect Pharmaceuticals, Fremont, CA, USA
SOURCE: Journal of Nanoscience and Nanotechnology (2006), 6(9/10), 2783-2789 CODEN: JNNOAR; ISSN: 1533-4880
PUBLISHER: American Scientific Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Broad therapeutic application of nucleic acid micro- and nanoparticles will require bioprocesses capable of achieving high loads of structurally intact and functionality active DNA. Here the authors report condensation of pDNA into nanoparticles by sedimentation through R4 peptide and partitioning at a hydrophobic interface. High (≥90%) coating efficiency onto microparticles is achieved via this combined bioprocess with the pDNA retaining 85-90% intact supercoil after bioprocessing. SEM analyses of the microparticles produced therefrom reveals bound pDNA and R4 peptide nanoparticles. HPLC and chemical analyses afford quantification of the particle-associated pDNA and R4 peptide along with lactose, raffinose, or trehalose carbohydrate stabilizer, surface coatings uniformly applied by spray freeze-drying.

Administration of these particles by gene gun demonstrates delivery to the nucleus of expressive nanoparticles and into rodents and pigs pronounced immunogenicity even after bioprocessing and accelerated degradation These data support the discovery of a robust bioprocess platform for prepg. macromol. bound bioparticles with potential relevance beyond simple prepn. of bioactive DNA vaccine.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:224292 CAPLUS
DOCUMENT NUMBER: 145:195416
TITLE: Preparation and release of salbutamol from chitosan and chitosan co-spray dried compacts and multiparticulates
AUTHOR(S): Corrigan, Deirdre O.; Healy, Anne Marie; Corrigan, Owen I.
CORPORATE SOURCE: School of Pharmacy and Pharmaceutical Sciences, Trinity College, University of Dublin, Dublin, Ire.
SOURCE: European Journal of Pharmaceutics and Biopharmaceutics (2006), 62(3), 295-305
CODEN: EJPBEL; ISSN: 0939-6411
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Chitosan microparticulates were prepd. by spray drying from aqueous media containing hydrochloric acid or acetic acid. The medium affected the morphol. and degree of acetylation of chitosan, the presence of acetic acid resulting in increased acetylation of the polymer during processing. Co-spray drying salbutamol sulfate/chitosan systems with the crosslinking agent formaldehyde had no detectable effect on particle morphol. However, with increasing salbutamol loading particles became less spherical, taking on a collapsed appearance. Spray dried chitosan-salbutamol sulfate microparticulates were X-ray amorphous. Chitosan-salbutamol sulfate composites were compressed into disks to quantify drug release and showed delayed release of salbutamol sulfate. The general power law equation fitted the data better than the t 0.5, mono- or bi-exponential models and gave n indexes greater than 0.5, i.e. in the range 0.53-0.71. Crosslinking did not dramatically alter the drug release behavior. Both crosslinked and non-crosslinked composites swelled during release, the former to the greater extent. The release data for crosslinked composites gave slightly higher n values than the corresponding non-crosslinked composites, consistent with the increased swelling of these systems. Release studies were also conducted on the microparticulates. Because of the small particle size and large surface area present, the release of the highly soluble drug salt was extremely rapid (>90% release in 5 min). Twin impinger anal. indicated good in vitro deposition of the microparticulates and potential for pulmonary delivery.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:160616 CAPLUS
DOCUMENT NUMBER: 142:246163
TITLE: Microparticles containing the CGRP antagonist for inhalation powder
INVENTOR(S): Trunk, Michael; Weiler, Claudius
PATENT ASSIGNEE(S): Boehringer Ingelheim International GmbH, Germany
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005042178	A1	20050224	US 2004-901791	20040729
DE 10338399	A1	20050317	DE 2003-10338399	20030818
CA 2536048	A1	20050303	CA 2004-2536048	20040812
WO 2005018609	A1	20050303	WO 2004-EP9013	20040812
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1658051	A1	20060524	EP 2004-764017	20040812
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2007502790	T	20070215	JP 2006-523577	20040812
PRIORITY APPLN. INFO.:			DE 2003-10338399 A	20030818
			US 2003-503116P P	20030915
			WO 2004-EP9013 W	20040812

AB The invention relates to inhalable powders in the form of stable, spray-dried microparticles (embedding particles) for pulmonary or nasal inhalation, containing the CGRP antagonist 1-[N2-[3,5-dibromo-N-[[4-(3,4-dihydro-2(1H)-oxoquinazolin-3-yl)-1-piperidinyl]carbonyl]-D-tyrosyl]-L-lysyl]-4-(4-pyridinyl)-piperazine (I) or a physiol. acceptable salt thereof and one or more excipients, processes for prepg. such microparticles and the use of microparticles for prepg. a powder inhalant for the treatment of headaches, migraine and cluster headache. For example, parameters for co-spray drying with lactose or mannitol from ethanolic solution of I, and with trehalose from aqueous solution of I were presented.

L8 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:1277288 CAPLUS
DOCUMENT NUMBER: 147:228694
TITLE: Salt resistance and its mechanism of cucumber under effects of exogenous chemical activator
AUTHOR(S): Song, Shiqing; Liu, Wei; Guo, Shirong; Shang, Qingmao; Zhang, Zhigang
CORPORATE SOURCE: Department of Horticulture and Gardening, Hebei Normal University of Science and Technology, Changli, 066600, Peop. Rep. China
SOURCE: Yingyong Shengtai Xuebao (2006), 17(10), 1871-1876
CODEN: YSXUER; ISSN: 1001-9332
PUBLISHER: Kexue Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB With root injection and foliar spray, this paper studied the effects of salicylic acid, brassinolide, chitosan and spermidine in different concns. on the growth, morphogenesis, and physiol. and biochem. characters of cucumber (Cucumis sativus L.) seedlings under 200 mmol•L-1 NaCl stress. The results showed that at proper concns., these four exogenous chemical activators could markedly decrease the salt stress index and mortality of cucumber seedlings, and the decrement induced by 0.01 mg•L-1 brassinolide was the largest, being 63.0% and 75.0%, resp. The activities of superoxide dismutase (SOD), peroxidase (POD) and catalase (CAT) increased significantly, resulting in a marked decrease of malondialdehyde (MDA) content and electrolyte leakage. The dry weight water content and morphogenesis of cucumber seedlings improved, and the stem diameter, leaf number, and healthy index increased significantly. All of these suggested that exogenous chemical activators at proper concns. could induce the salt resistance of cucumber, and mitigate the damage degree of salt stress. The salt resistance effect of test exogenous chemical activators decreased in the sequence of 0.005-0.05 mg•L-1 for brassinolide, 150-250 mg•L-1 for spermidine, 100-200 mg•L-1 for chitosan, and 50-150 mg•L-1 for salicylic acid.

L8 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:883051 CAPLUS
DOCUMENT NUMBER: 145:288140
TITLE: Process for extracting protein from Tenebrio molitor
INVENTOR(S): Chen, Chen; Sun, Lei; Zhao, Lei; Sheng, Yan; Sui, Pengpeng; Gao, Hua; Li, Jingqian
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 5pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1821266	A	20060823	CN 2006-10043214	20060315

PRIORITY APPLN. INFO.: CN 2006-10043214 20060315
AB The process comprises drying Tenebrio molitor, mashing, defatting with aroms. free solvent, filtrating, dissolving crude protein by adding salt or base, precipitating protein by isoelec. method, salting out or dialysis, spray drying to obtain Tenebrio molitor protein. The method is environment-friendly and gave protein with stable nutritive elements.

L8 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:752406 CAPLUS

DOCUMENT NUMBER: 145:187492
TITLE: Film-forming liquid composition for preservation of salted pork in jelly
INVENTOR(S): Chang, Zhongyi; Zhao, Ning; Wang, Chunsheng
PATENT ASSIGNEE(S): Nanjing Yurun Food Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 4 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1806567	A	20060726	CN 2006-10038056	20060126

PRIORITY APPLN. INFO.: CN 2006-10038056 20060126

AB The title liquid composition comprises food-grade lactic acid 0.8-2%, chitosan 0.8-1.2%, nisin 0.008-0.012%, and water as balance. The composition is sprayed onto salted pork in jelly and can form a preservative film after air-drying, which can destroy microbial enzyme system, prohibit microbial respiration, and kill bacteria by influencing cell wall permeability and prohibiting synthesis of cell wall. With the preservative film, the storage life of salted pork in jelly at 0-4°C is prolonged for about 15 days without adverse effect on the appearance and taste of salted pork in jelly.

L8 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1350300 CAPLUS
DOCUMENT NUMBER: 144:74856
TITLE: Gastroresistant microparticles for the oral administration of biologically active substances
INVENTOR(S): Vigo, Daniele; Russo, Vincenzo; Faustini, Massimo; Pace, Mario Francesco; Munari, Eleonora; Torre, Maria Luisa; Conte, Ubaldo
PATENT ASSIGNEE(S): Universita degli Studi di Milano, Italy; Universita degli Studi di Pavia
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005123034	A2	20051229	WO 2005-IT353	20050620
WO 2005123034	A8	20060330		
WO 2005123034	A3	20060914		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1778192	A2	20070502	EP 2005-760593	20050620
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				

PRIORITY APPLN. INFO.: IT 2004-MI1255 A 20040622

WO 2005-IT353 W 20050620

AB The present invention relates to microparticulate systems consisting of a gastroresistant, biocompatible and biodegradable polymer matrix, comprising a gastroresistant and enterosol. polymer, a cryoprotector or lyoprotector, a divalent or trivalent metal salt of a biocompatible and biodegradable polymer having acid groups, and biol. active substances. Such gastroresistant microparticulate systems are used for the administration, preferably oral, of biol. active substances to animal species. The special composition of such microparticulate systems allows the protection of said biol. active substances from degradation by proteases and gastric acid, allowing their release into the intestine, where they may perform their activities. For example, microparticles contained sodium alginate, Methocel E3 (HPMC), lactose, Eudragit S100 and α-amylase.

L8 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:632278 CAPLUS
DOCUMENT NUMBER: 143:139181
TITLE: Oral and injection compositions containing vitamin C derivatives, antitumor polysaccharides, and antioxidants, and manufacture thereof
INVENTOR(S): Iida, Shigeo
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005194255	A	20050721	JP 2004-28651	20040106

PRIORITY APPLN. INFO.: JP 2004-28651 20040106

AB The invention relates to an oral and/or injection composition for treatment and/or prevention of various disease including tumor, wherein the composition is characterized by containing a bound compound of a vitamin C derivative, an antitumor polysaccharide, and an antioxidant. A method for manufacturing the composition including freeze-drying and/or spray-drying of the mixture of the components is also disclosed. For example, a mixture containing ascorbic acid 40, L-ascorbic acid-2-O-phosphate sodium salt 7, 6-O-palmitoyl-L-ascorbic acid 3, Agaricus blazei extract 16, Phellinus linteus 16, fucoidan 16, and marine taurine 2 parts was freeze-dried. The obtained freeze-dried composition was injected to mice to examine the antitumor effect.

L8 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:272084 CAPLUS
DOCUMENT NUMBER: 136:261821
TITLE: Method comprising flocculation clarification and ultrafiltration concentration of producing composite immunoreactive proteins from chicken egg
INVENTOR(S): Yang, Yanjun
PATENT ASSIGNEE(S): Jiangnan Univ., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 8 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1312295	A	20010912	CN 2001-108225	20010221

CN 1129609 B 20031203
PRIORITY APPLN. INFO.: CN 2001-108225 20010221
AB The process comprises isolating egg yolk from fresh egg; extracting with water at pH 4.8-7.7 for 5-25 min; centrifuging or precipitating for 5-18 h to obtain egg yolk extract; flocculating with 0.2-1.1% flocculant (composed of soluble Ca salt such as Ca(OAc)2 or Ca lactate, chitosan, and phosphate such as Na3PO4 or K3PO4 at a ratio of 0.02-0.3:0-0.12:0.16-0.68) at pH 4.5-8.5 for 5-20 min; standing for 20-60 min; filtering or centrifuging; ultrafiltering with ultrafilter membrane (such as cellulose acetate membrane, modified polysulfone membrane, polyether sulfone membrane, or polyvinylidene fluoride membrane); sterilizing with 0.22 μm ultrafilter membrane; and freezing at -30 to -50°C for 24 h. Fresh eggs are collected from chicken immunized with pathogenic bacteria from human intestine, virus, or caries bacteria. The content of transferrin in the immunoreactive protein was >10%. The isolated chicken immunoreactive proteins comprising Igs. and transferrin are useful as nutrition supplement for infant formula. The method also produces byproducts such as egg-yolk powder and egg-white powder by spray-drying for food purpose.

L8 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:458758 CAPLUS
DOCUMENT NUMBER: 135:60476
TITLE: Food additives containing ascorbic acid chitosan complexes, their manufacture, and food containing them
INVENTOR(S): Hashimoto, Kunihiko; Onishi, Nobukazu
PATENT ASSIGNEE(S): Nishikawa Rubber Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001169750	A	20010626	JP 1999-376807	19991217
JP 3476130	B2	20031210		

PRIORITY APPLN. INFO.: JP 1999-376807 19991217
AB Food additives, which control lipid metabolism and stimulate immunity, are manufactured by (1) dissolving chitin-chitosan or chitosan with deacetylation degree ≥75% in 0.1-5% organic acid buffer at 0.05-3%, (2) adjusting the solution at pH 5.0-7.5 upon addition of aqueous alkaline solns., (3) adding ≥1 compound selected from ascorbic acid, ascorbic acid, 2-O-phosphate, ascorbic acid 2-O-glucoside, and their salts, preferably their dried products, to the solution at 3-6 mol per 1 kg (dry weight) chitosans, and then (4) pulverizing the solution by freeze-drying and/or spray-drying at a lower temperature Foods manufactured by adding the additives to powder or dissolving them to liqs. are also claimed. Chitosan with deacetylation degree 85% was dissolved in an aqueous solution of glutamic acid and the solution was treated with NaOH solution to adjust pH at 6.0. One of the above ascorbic acids was added to the solution and the mixture was freeze-dried to give powder. Hypocholesteremic effect of the powder was shown in hyperlipemic patients. The powder also increased IgG1 and IgG2 in Japanese black calves and Holstein calves.

L8 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:23468 CAPLUS
DOCUMENT NUMBER: 130:100718
TITLE: Toilet seat cleaners containing chitosan and

quaternary ammonium salts
INVENTOR(S): Takano, Izumi; Takahashi, Yukiko
PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11001700	A	19990106	JP 1997-157205	19970613
JP 3882864	B2	20070221		
PRIORITY APPLN. INFO.:			JP 1997-157205	19970613

AB The cleaners contain chitosan and quaternary ammonium salts, preferably benzalkonium chloride (I). The cleaners are directly sprayed over a toilet seat or used by impregnating cotton, gauze, or nonwoven fabrics with them. The cleaners show long-lasting disinfectant effect. Water 40, glacial acetic acid 0.13, Flonac C 0.25, I 0.1, glycerin 1.0, and EtOH 47.4 weight parts were mixed to give a toilet cleaner. The cleaner showed quick drying property and good antibacterial effect.

L8 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:132794 CAPLUS
DOCUMENT NUMBER: 128:235074
TITLE: Design of microencapsulated chitosan microspheres for colonic drug delivery
AUTHOR(S): Lorenzo-Lamosa, M. L.; Remunan-Lopez, C.; Vila-Jato, J. L.; Alonso, M. J.
CORPORATE SOURCE: Faculty of Pharmacy, Department of Pharmaceutical Technology, University of Santiago de Compostela, Santiago de Compostela, 15706, Spain
SOURCE: Journal of Controlled Release (1998), 52(1,2), 109-118
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Among the different approaches to achieve colon-selective drug delivery, the use of polymers, specifically biodegraded by colonic bacteria, holds great promise. In this work a new system which combines specific biodegradability and pH-dependent release is presented. The system consists of chitosan (CS) microcores entrapped within acrylic microspheres. Sodium diclofenac (SD), used as a model drug, was efficiently entrapped within CS microcores using spray-drying and then microencapsulated into Eudragit L-100 and Eudragit S-100 using an oil-in-oil solvent evaporation method. The size of the CS microcores was small (1.8-2.9 μm) and they were efficiently encapsulated within Eudragit microspheres (size between 152 and 223 μm) forming a multireservoir system. Even though CS dissolves very fast in acidic media, at pH 7.4, SD release from CS microcores was delayed, the release rate being adjustable (50 dissolved within 30-120 min) by changing the CS mol. weight (MW) or the type of CS salt. Furthermore, by coating the CS microcores with Eudragit, perfect pH-dependent release profiles were attained. No release was observed at acidic pHs, however, when reaching the Eudragit pH solubility, a continuous release for a variable time (8-12 h) was achieved. A combined mechanism of release is proposed, which considers the dissoln. of the Eudragit coating, the swelling of the CS microcores and the dissoln. of SD and its further diffusion through the CS gel cores. In addition, IR (IR) spectra revealed that there was an ionic interaction between the amine groups of CS and the carboxyl groups of Eudragit, which provided the system with a new element for controlling the release. In conclusion,

this work presents new approaches for the modification of CS as well as a new system with a great potential for colonic drug delivery.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:20052 CAPLUS
DOCUMENT NUMBER: 116:20052
TITLE: Whipping cream substitute powders containing chitosan and their manufacture
INVENTOR(S): Ootani, Makoto; Tatsumi, Kyoshi
PATENT ASSIGNEE(S): Snow Brand Milk Products Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03210147	A	19910913	JP 1990-5986	19900112
PRIORITY APPLN. INFO.:			JP 1990-5986	19900112

AB Whipping cream substitute powders are manufactured by emulsifying oil and aq phases, mixing with chitosan solns., homogenizing, sterilizing, concentrating, and drying. The powders are whipped with H2O and the whipped cream substitutes show good shape retention, mild taste and melt smoothly in the mouth. An oil phase of hydrogenated coconut oil, hydrogenated palm kernel oil, and emulsifiers were mixed with aqueous phase containing acid casein, Ca(OH)2, phosphate salts, sucrose, powdered starch sugar, whey, and guar gum and homogenized with an aqueous solution containing chitosan and lactic acid, sterilized, and spray-dried to manufacture a powder.

L8 ANSWER 11 OF 12 MEDLINE on STN
ACCESSION NUMBER: 2002257824 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11996810
TITLE: Influence of different chitosan salts on the release of sodium diclofenac in colon-specific delivery.
AUTHOR: Orienti I; Cerchiara T; Luppi B; Bigucci F; Zuccari G; Zecchi V
CORPORATE SOURCE: Department of Pharmaceutical Sciences, University of Bologna, Via S. Donato 19/2, 40127, Bologna, Italy.. orienti@biocfarm.unibo.it
SOURCE: International journal of pharmaceutics, (2002 May 15) Vol. 238, No. 1-2, pp. 51-9.
Journal code: 7804127. ISSN: 0378-5173.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200206
ENTRY DATE: Entered STN: 9 May 2002
Last Updated on STN: 28 Jun 2002
Entered Medline: 27 Jun 2002

AB Chitosan (CH) was dissolved in aqueous solutions containing aspartic, glutamic, hydrochloric, lactic and citric acids to obtain different chitosan salts. Chitosan salts were collected from the solutions by spray-drying and the powders obtained were mixed with Sodium Diclofenac (SD), taken as a model anti-inflammatory drug. This study evaluated in vitro the influence of acid type on the release behaviour of SD from the physical mixture during gastrointestinal transit. The physical mixture of the chitosan

salts with SD provided slower drug release than the pure drug both in acidic and alkaline pHs. In addition, the interaction with beta-glucosidase at pH 7.0 enhanced the release rate. Among the CH salts used, glutamic and aspartic salts provided the best control of release.

L8 ANSWER 12 OF 12 MEDLINE on STN
ACCESSION NUMBER: 1998350558 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9685941
TITLE: Design of microencapsulated chitosan microspheres for colonic drug delivery.
AUTHOR: Lorenzo-Lamosa M L; Remunan-Lopez C; Vila-Jato J L; Alonso M J
CORPORATE SOURCE: Department of Pharmaceutical Technology, Faculty of Pharmacy, University of Santiago de Compostela, Spain.
SOURCE: Journal of controlled release : official journal of the Controlled Release Society, (1998 Mar 2) Vol. 52, No. 1-2, pp. 109-18.
Journal code: 8607908. ISSN: 0168-3659.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199808
ENTRY DATE: Entered STN: 20 Aug 1998
Last Updated on STN: 20 Aug 1998
Entered Medline: 13 Aug 1998

AB Among the different approaches to achieve colon-selective drug delivery, the use of polymers, specifically biodegraded by colonic bacteria, holds great promise. In this work a new system which combines specific biodegradability and pH-dependent release is presented. The system consists of chitosan (CS) microcores entrapped within acrylic microspheres. Sodium diclofenac (SD), used as a model drug, was efficiently entrapped within CS microcores using spray-drying and then microencapsulated into Eudragit L-100 and Eudragit S-100 using an oil-in-oil solvent evaporation method. The size of the CS microcores was small (1.8-2.9 microns) and they were encapsulated within Eudragit microspheres (size between 152 and 233 microns) forming a multireservoir system. Even though CS dissolves very fast in acidic media, at pH 7.4, SD release from CS microcores was delayed, the release rate being adjustable (50% dissolved within 30-120 min) by changing the CS molecular weight (MW) or the type of CS salt. Furthermore, by coating the CS microcores with Eudragit, perfect pH-dependent release profiles were attained. No release was observed at acidic pHs, however, when reaching the Eudragit pH solubility, a continuous release for a variable time (8-12 h) was achieved. A combined mechanism of release is proposed, which considers the dissolution of the Eudragit coating, the swelling of the CS microcores and the dissolution of SD and its further diffusion through the CS gel cores. In addition, infrared (IR) spectra revealed that there was an ionic interaction between the amine groups of CS and the carboxyl groups of Eudragit, which provided the system with a new element for controlling the release. In conclusion, this work presents new approaches for the modification of CS as well as a new system with a great potential for colonic drug delivery.

L13 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:912676 CAPLUS
DOCUMENT NUMBER: 147:263396
TITLE: Multimicroparticular pharmaceutical dosage forms for administration by oral route
INVENTOR(S): Guimberteau, Florence; Dargelas, Frederic
PATENT ASSIGNEE(S): Flamel Technologies, Fr.
SOURCE: Fr. Demande, 52pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2897267	A1	20070817	FR 2006-50566	20060216
WO 2007093642	A2	20070823	WO 2007-EP51528	20070216

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: FR 2006-50566 A 20060216
AB The objective of this invention is to minimize the risks of dumping dose associated with concomitant consumption of alc. and certain modified-release dosage forms. In particular, the oral dosage form according to the invention is characterized in that the release time of 50% of active principle in an alc. solution is not decreased more than 3 times compared to the release time of 50% of the principle active measured in aqueous medium free from alc. The invention is an oral dosage form comprising reservoir-type, modified-release microparticles having at least an active principle, characterized in that it resists the immediate discharge of the of active principle in the presence of alc. A suspension of acyclovir and hydroxypropyl cellulose was sprayed on guar gum microparticles. To the above particles were sprayed a solution of Et cellulose, cellulose acetate butyrate, Polysorbate-80, and tri-Et citrate in water and acetone. The microparticles thus obtained were filled into capsules.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:328035 CAPLUS
DOCUMENT NUMBER: 146:302373
TITLE: Active substance-containing adsorbates
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Gebrauchsmusterschrift, 25pp.
CODEN: GGXXFR
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

DE 202004021155	U1	20070322	DE 2004-202004021155	20040305
DE 10311585	A1	20040923	DE 2003-10311585	20030314
EP 1605773	A2	20051221	EP 2004-717597	20040305

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.:	DE 2003-10311585	IA 20030314
	EP 2004-717597	A 20040305
	WO 2004-EP2244	W 20040305

AB The invention concerns adsorbed substances that are prepared by applying the substance to be adsorbed (A) onto a carrier (C) in the presence of at least one stabilizer (B) in a way: (a) that the particle size of C is at least 80 μm; (b) that in case A is Vitamin E the mixture of A and B has a HLB value < 7; (c) that in case A is an oil-soluble vitamin and B is a glyceride the mixture of A and B has a solidification point ≤ 80°C. Cosmetics, dietary supplements, feed supplements are prepared Adsorbates are vitamins, carotenes, xanthophylls, saturated fatty acids and liponic acid. Carrier materials are selected from the group of silica, silicic acid, diatomaceous earth, sugars, dextrins, starches, cellulose derivs.; carriers can be coated. Stabilizers include glycerides, emulsifiers, polysaccharides, and chelating agents. Thus 816 g Vitamin E acetate was dispersed with 40.8 g Cremaphor GO 32 at 65°C; the mixture was sprayed onto silicic acid.

L13 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2006:1063981 CAPLUS
DOCUMENT NUMBER:	145:383083
TITLE:	R4 peptide-pDNA nanoparticle coated HepB vaccine microparticles: sedimentation, partitioning, and spray freeze dry bioprocesses
AUTHOR(S):	Knowle, R.; Werner, A.; DeLong, R. K.
CORPORATE SOURCE:	Process, Formulation and Analytical Laboratories, PowderJect Pharmaceuticals, Fremont, CA, USA
SOURCE:	Journal of Nanoscience and Nanotechnology (2006), 6(9/10), 2783-2789 CODEN: JNNOAR; ISSN: 1533-4880
PUBLISHER:	American Scientific Publishers
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Broad therapeutic application of nucleic acid micro- and nanoparticles will require bioprocesses capable of achieving high loads of structurally intact and functionality active DNA. Here the authors report condensation of pDNA into nanoparticles by sedimentation through R4 peptide and partitioning at a hydrophobic interface. High (≥90%) coating efficiency onto microparticles is achieved via this combined bioprocess with the pDNA retaining 85-90% intact supercoil after bioprocessing. SEM analyses of the microparticles produced therefrom reveals bound pDNA and R4 peptide nanoparticles. HPLC and chemical analyses afford quantification of the particle-associated pDNA and R4 peptide along with lactose, raffinose, or trehalose carbohydrate stabilizer, surface coatings uniformly applied by spray freeze-drying. Administration of these particles by gene gun demonstrates delivery to the nucleus of expressive nanoparticles and into rodents and pigs pronounced immunogenicity even after bioprocessing and accelerated degradation These data support the discovery of a robust bioprocess platform for preparing macromol. bound bioparticles with potential relevance beyond simple preparation of bioactive DNA vaccine.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2006:946510 CAPLUS
DOCUMENT NUMBER:	145:321764
TITLE:	Time release calcium sulfate matrix for bone augmentation

INVENTOR(S): Alexander, Harold; Ricci, John L.; Mamidwar, Sachin
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 22pp., Cont.-in-part of U.S. Ser. No. 892,509.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006204586	A1	20060914	US 2006-369322	20060306
US 2002016636	A1	20020207	US 2001-918445	20010801
US 6770695	B2	20040803		
US 2004254259	A1	20041216	US 2004-892509	20040714
AU 2006252084	A1	20070111	AU 2006-252084	20061218
WO 2007103328	A2	20070913	WO 2007-US5618	20070306

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

US 2000-223624P	P	20000807
US 2001-918445	A1	20010801
US 2004-892509	A2	20040714
AU 2002-330931	A3	20020726
US 2006-369322	A2	20060306

AB A bone-growth stimulating composition for forming a resorbable implant, methods for making such a composition and a corresponding putty/paste material. In some embodiments of the invention, such a material includes a plurality of particles having a predetd. size and comprising a first calcium sulfate compound and a resorbable polymer in a predetd. weight ratio. Methods for making such a material include rotating calcium sulfate powder in a drum at a first predetd. drum speed, spraying of a resorbable polymer solution at a predetd. rate on the calcium sulfate powder over a predetd. period of time and drying the resulting particles. Such compns. allow resorption rates of the implant composition in vivo to be controlled, and may vary between 8 and 24 wk, which can be matched to substantially correspond to a rate of bone growth in a particular application. The implant composition of the present invention can be used for the repair, augmentation, and other treatment of bone.

L13 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:224292 CAPLUS
DOCUMENT NUMBER: 145:195416
TITLE: Preparation and release of salbutamol from chitosan and chitosan co-spray dried compacts and multiparticulates
AUTHOR(S): Corrigan, Deirdre O.; Healy, Anne Marie; Corrigan, Owen I.
CORPORATE SOURCE: School of Pharmacy and Pharmaceutical Sciences, Trinity College, University of Dublin, Dublin, Ire.
SOURCE: European Journal of Pharmaceutics and Biopharmaceutics (2006), 62(3), 295-305
CODEN: EJPBEL; ISSN: 0939-6411
PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal
LANGUAGE: English

AB Chitosan microparticulates were prepared by spray drying from aqueous media containing hydrochloric acid or acetic acid. The medium affected the morphol. and degree of acetylation of chitosan, the presence of acetic acid resulting in increased acetylation of the polymer during processing. Co-spray drying salbutamol sulfate/chitosan systems with the crosslinking agent formaldehyde had no detectable effect on particle morphol. However, with increasing salbutamol loading particles became less spherical, taking on a collapsed appearance. Spray dried chitosan-salbutamol sulfate microparticulates were X-ray amorphous. Chitosan-salbutamol sulfate composites were compressed into disks to quantify drug release and showed delayed release of salbutamol sulfate. The general power law equation fitted the data better than the t 0.5, mono- or bi-exponential models and gave n indexes greater than 0.5, i.e. in the range 0.53-0.71. Crosslinking did not dramatically alter the drug release behavior. Both crosslinked and non-crosslinked composites swelled during release, the former to the greater extent. The release data for crosslinked composites gave slightly higher n values than the corresponding non-crosslinked composites, consistent with the increased swelling of these systems. Release studies were also conducted on the microparticulates. Because of the small particle size and large surface area present, the release of the highly soluble drug salt was extremely rapid (>90% release in 5 min). Twin impinger anal. indicated good in vitro deposition of the microparticulates and potential for pulmonary delivery.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:160616 CAPLUS
DOCUMENT NUMBER: 142:246163
TITLE: Microparticles containing the CGRP antagonist for inhalation powder
INVENTOR(S): Trunk, Michael; Weiler, Claudius
PATENT ASSIGNEE(S): Boehringer Ingelheim International GmbH, Germany
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005042178	A1	20050224	US 2004-901791	20040729
DE 10338399	A1	20050317	DE 2003-10338399	20030818
CA 2536048	A1	20050303	CA 2004-2536048	20040812
WO 2005018609	A1	20050303	WO 2004-EP9013	20040812
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1658051	A1	20060524	EP 2004-764017	20040812
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2007502790	T	20070215	JP 2006-523577	20040812

PRIORITY APPLN. INFO.: DE 2003-10338399 A 20030818
US 2003-503116P P 20030915
WO 2004-EP9013 W 20040812

AB The invention relates to inhalable powders in the form of stable, spray-dried microparticles (embedding particles) for pulmonary or nasal inhalation, containing the CGRP antagonist 1-[N2-[3,5-dibromo-N-[[4-(3,4-dihydro-2(1H)-oxoquinazolin-3-yl)-1-piperidinyl]carbonyl]-D-tyrosyl]-L-lysyl]-4-(4-pyridinyl)-piperazine (I) or a physiol. acceptable salt thereof and one or more excipients, processes for preparing such microparticles and the use of microparticles for preparing a powder inhalant for the treatment of headaches, migraine and cluster headache. For example, parameters for co-spray drying with lactose or mannitol from ethanolic solution of I, and with trehalose from aqueous solution of I were presented.

L13 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1015840 CAPLUS
DOCUMENT NUMBER: 141:428027
TITLE: Method for producing a chitosan-bound salt with antihypertensive activity
INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park, Hyun Jin; Kim, In Cheol
PATENT ASSIGNEE(S): S. Korea
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004100681	A1	20041125	WO 2004-KR410	20040227
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2004099587	A	20041202	KR 2003-31616	20030519
EP 1631155	A1	20060308	EP 2004-715573	20040227
R: DE, ES, FR, GB, IT				
JP 2006518190	T	20060810	JP 2005-518455	20040227
US 2005232999	A1	20051020	US 2004-518419	20041217

PRIORITY APPLN. INFO.: KR 2003-31616 A 20030519
WO 2004-KR410 W 20040227

AB The present invention relates to a method for producing a chitosan-bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

l14 1 ibib abs

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:849402 CAPLUS
DOCUMENT NUMBER: 137:358122
TITLE: Novel methods and compositions for delivering macromolecules to or via the respiratory tract
INVENTOR(S): Bot, Adrian; Dellamary, Luis A.; Smith, Dan
PATENT ASSIGNEE(S): Inhale Therapeutic Systems, Inc., USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002087542	A1	20021107	WO 2002-US13145		20020426
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2002259013	A1	20021111	AU 2002-259013		20020426
EP 1390012	A1	20040225	EP 2002-728994		20020426
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004528339	T	20040916	JP 2002-584888		20020426
PRIORITY APPLN. INFO.:			US 2001-286891P	P	20010426
			WO 2002-US13145	W	20020426

AB Methods and compns. for delivering macromols. to or via the respiratory tract, such that the macromols. exhibit improved local and/or systemic bioavailability are provided. Such methods utilize lipid-based microstructures formed in combination with at least one bioactive macromol., which have a superior ability to rapidly release the bioactive macromol.(s) thereby resulting in improved local and/or systemic bioavailability of the bioactive macromol.(s). Such improved bioavailability is believed to be due, in part, to reduction of scavenging by bronchoalveolar macrophages and/or mucociliary clearance. Compns. with improved bioavailability are provided comprising a plurality of lipid-based microstructures formed in combination with at least one bioactive macromol., wherein the bioavailability of the bioactive macromol. is improved by modifying the rate of release of the bioactive macromol. from the microstructure thereby reducing scavenging by bronchoalveolar macrophages and/or mucociliary clearance. For example, short-chain, metal ion-lipid complex-based microstructures (SDMLM) were manufactured by a spray dry process for an improved release of the active ingredient. An aqueous preparation was prepared by mixing two prepns., A and B, immediately prior to spray drying. Preparation A was comprised of a liposome/micellar suspension of 0.14 g of dioctanoylphosphatidylcholine, 0.04 g of CaCl2·2H2O and 0.716 g of lactose dispersed in 23 g of hot water. Preparation B contained 58.6 mg of human IgG dissolved in 2 mL of 0.9% NaCl. Four grams of preparation A was added to preparation B and the combined feed preparation was spray dried. The final composition of the microstructure was dioctanoylphosphatidylcholine/CaCl2·2H2O/lactose /hIgG in the ratio of 12:3:60:25. The resulting powder comprised distinct, compact particles of geometric sizes in the range of 1-5 μm. Addition of tyloxapol greatly improved the local pulmonary

retention and bioavailability upon aerosolization of the SDMLM particle formulation.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1015840 CAPLUS
DOCUMENT NUMBER: 141:428027
TITLE: Method for producing a chitosan-bound salt with antihypertensive activity
INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park, Hyun Jin; Kim, In Cheol
PATENT ASSIGNEE(S): S. Korea
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004100681	A1	20041125	WO 2004-KR410	20040227
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2004099587	A	20041202	KR 2003-31616	20030519
EP 1631155	A1	20060308	EP 2004-715573	20040227
R: DE, ES, FR, GB, IT				
JP 2006518190	T	20060810	JP 2005-518455	20040227
US 2005232999	A1	20051020	US 2004-518419	20041217

PRIORITY APPLN. INFO.: KR 2003-31616 A 20030519
WO 2004-KR410 W 20040227

AB The present invention relates to a method for producing a chitosan -bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan-containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1290165 CAPLUS
DOCUMENT NUMBER: 144:37421
TITLE: Antifouling coating compositions with low friction property, their coating films, and method of reducing underwater friction therewith
INVENTOR(S): Ichinose, Yoshifumi; Onishi, Isamu; Yamamori, Naoki; Masuda, Kazuaki
PATENT ASSIGNEE(S): Nippon Paint Co., Ltd., Japan
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005116155	A1	20051208	WO 2005-JP9696	20050526
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1749868	A1	20070207	EP 2005-743270	20050526
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 1957049	A	20070502	CN 2005-80016706	20050526
KR 2007027618	A	20070309	KR 2006-727292	20061226
PRIORITY APPLN. INFO.:			JP 2004-156756 A	20040526
			WO 2005-JP9696 W	20050526

AB Title compns. contain 0.01-15% (preferably; based on 100 parts solid content) organic polymer particles with diameter of 0.05-100 μm and are characterized in having 23° artificial seawater solubility (A1, by ASTM D1141-98) of ≤15 g/L and artificial seawater absorption (A2, by ASTM D1141-98) of ≥0.01%. An organic solution containing Me methacrylate (I)-2-methoxyethyl methacrylate-triisopropylsilyl methacrylate copolymer, antifouling agents, and 4.5% 2.2-μm I-ethylene glycol dimethacrylate-2-hydroxyethyl acrylate-polyoxyethylene Me ether methacrylate copolymer particles with A1 <2 g/L and A2 0.3% showed good antifouling ability over 2 yr and friction index 2.3% under 25 knot initially and 1.6% after soaking in seawater over 1 mo.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:471923 CAPLUS
DOCUMENT NUMBER: 143:25540
TITLE: Food-fortifying iron salt coated with alginate and method for its preparation
INVENTOR(S): Re, Maria Ines; Fernandes, Fernando Cesar
PATENT ASSIGNEE(S): Instituto de Pesquisas Tecnologicas do Estado de Sao Paulo S. A.-Ipt, Brazil; Fermavi Eletroquimica Ltda
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005048995	A1	20050602	WO 2004-BR231	20041123
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
BR 2003005871	A	20050719	BR 2003-5871	20031124
EP 1694312	A1	20060830	EP 2004-797148	20041123
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				

PRIORITY APPLN. INFO.: BR 2003-5871 A 20031124
WO 2004-BR231 W 20041123

AB An iron source (e.g., a ferrous sulfate-based product) for nutritional fortification that maintains stable sensorial properties during storage is obtained after an alginate film is formed on bioavailable iron salt particles. In a first step, sodium or potassium alginate film is deposited on the surface of ferrous sulfate or other bioavailable iron salt particles, followed by successive stages consisting of drying, depositing (or not) a film of polycations or synthetic polymers (e.g., chitosan, polyethylamine, or poly-L-lysine) and drying and depositing a new alginate layer, and finally drying until the desired coating and particle size are attained. Fortification may be applied to wheat flour (for bread).

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1015840 CAPLUS
DOCUMENT NUMBER: 141:428027
TITLE: Method for producing a chitosan-bound salt with antihypertensive activity
INVENTOR(S): Cho, Gun Sik; Kim, Gye Yeop; Ham, Kyung Sik; Park, Hyun Jin; Kim, In Cheol
PATENT ASSIGNEE(S): S. Korea
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004100681	A1	20041125	WO 2004-KR410	20040227
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,				

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

KR 2004099587	A	20041202	KR 2003-31616		20030519
EP 1631155	A1	20060308	EP 2004-715573		20040227
R: DE, ES, FR, GB, IT					
JP 2006518190	T	20060810	JP 2005-518455		20040227
US 2005232999	A1	20051020	US 2004-518419		20041217
PRIORITY APPLN. INFO.:			KR 2003-31616	A	20030519
			WO 2004-KR410	W	20040227

AB The present invention relates to a method for producing a chitosan -bound salt having the function of lowering blood pressure. The method comprises the steps of: (a) dissolving an acid-soluble chitosan in organic acid, or dissolving a water-soluble chitosan derivative in water, to prepare a chitosan solution; (b) spraying the chitosan solution on salt particles to bind the chitosan to the salt particles; and (c) drying the chitosan-bound salt particles. The chitosan or its derivative is bound to the salt particles by spraying or mixing such that the chitosan -containing salt can be produced without performing a recrystg. step.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1990:185865 CAPLUS
DOCUMENT NUMBER: 112:185865
TITLE: Polyurethane sheet containing chitosan salts for treatment of decubitus ulcer
INVENTOR(S): Morita, Isamu; Sugimoto, Tadayuki
PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01207238	A	19890821	JP 1988-33552	19880215
PRIORITY APPLN. INFO.:			JP 1988-33552	19880215

AB A sheet for treatment of decubitus ulcer consists of a polyurethane foam sheet containing chitosan salt particles. Thus, a cream was prepared using polyurethane 390 and chitosan lactate 4.5 parts by weight with foam-producing agents and a thickener, and spread over a nonwoven sheet of polyester.

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     (FILE 'HOME' ENTERED AT 13:37:38 ON 18 SEP 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 13:37:58 ON 18 SEP 2007

     FILE 'REGISTRY' ENTERED AT 13:38:05 ON 18 SEP 2007
               E CHITOSAN/CN
L1           1 S E3

     FILE 'CAPLUS, MEDLINE' ENTERED AT 13:39:52 ON 18 SEP 2007
L2       26665 S L1
L3         105 S L2 AND SPRAY? (P) SALT?
L4          76 S L3 AND ACID?
L5           2 S L4 AND SEA
L6          32 S L4 AND DRY?
L7          20 S L6 AND PREP?
L8          12 S L6 NOT L7
L9          44 S L4 NOT L6
L10          0 S L9 AND BIND?
L11         29 S L3 NOT L4
L12        164 S L2 AND SPRAY? (P) PARTICLE?
L13         16 S L12 AND SALT?
L14          1 S L2 AND SPRAY? ON (P) PARTICLE? (P) NACL
L15        164 S L12 (W) PARTICLE?
L16        164 S L12 (W) PARTICLE?
L17        164 S L12 (S) PARTICLE?
L18        327 S D HIS
L19          0 S CHITOSAN? (P) SPRAYED ONTO PARTICLE?
L20          0 S CHITOSAN? (P) SPRAYED ON PARTICLE?
L21          0 S CHITOSAN? (P) SPRAYED ON SALT PARTICLE?
L22          0 S CHITOSAN? (P) SPRAY ON SALT PARTICLE?
L23          0 S CHITOSAN? (P) SPRAY ONTO SALT PARTICLE?
L24          0 S CHITOSAN? (P) SPRAY? ONTO SALT PARTICLE?
L25          1 S CHITOSAN? (P) SPRAY? (P) SALT PARTICLE?
L26        141 S CHITOSAN? (P) SPRAY? (P) PARTICLE?
L27         50 S L26 AND DRIED
L28          4 S CHITOSAN? (P) SALT PARTICLE?
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=> d his

     (FILE 'HOME' ENTERED AT 17:20:24 ON 18 SEP 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 17:20:46 ON 18 SEP 2007
L1            52 S CHITOSAN (P) SALT (P) BIND?
L2             0 S L1 AND GRAIN?
L3             5 S L1 AND PARTICLE?
L4             2 S L1 AND ADHE?
L5             6 S L1 AND SOLID?
L6             1 S L1 AND SEA SALT?
L7            51 S L1 NOT L6
L8             0 S L7 AND ROCK SALT?
L9           234 S CHITOSAN (P) SALT (P) REACT?
L10            4 S CHITOSAN (P) SALT PARTICLE?
L11          155 S CHITOSAN (P) SALT (P) REACTION?
L12            0 S CHITOSAN (P) TABLE SALT (P) REACTION?
L13            2 S CHITOSAN (P) TABLE SALT
L14            2 S CHITOSAN (P) TABLE SALT?
L15            1 S CHITOSAN SALT PARTICLE?
L16            1 S "CHITOSAN/SALT" PARTICLE?
L17          194 S "CHITOSAN/SALT"
L18           16 S L17 AND SPRAY?
L19           10 S CHITOSAN/TI (P) NACL/TI
L20            6 S CHITOSAN (P) NACL (P) POROGEN?
L21           73 S CHITOSAN (P) NACL (P) MEMBRANE?
L22            3 S L21 AND SPRAY?
L23            1 S CHITOSAN (P) SODIUM CHLORIDE PARTICLE?
L24            0 S CHITOSAN (P) SOLID SODIUM CHLORIDE
L25            0 S CHITOSAN (P) SODIUM CHLORIDE CRYSTAL?
L26            0 S CHITOSAN (P) NACL CRYSTAL?
L27            0 S CHITOSAN (P) NACL POWDER?
L28            4 S CHITOSAN (P) NACL SALT?
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